DOCKET NO.: ABME-0806/B970162 PATENT

Application No.: 10/676,479

Office Action Dated: February 27, 2007

REMARKS

This is in response to the Office Action dated February 27, 2007 and accompanies a Request for Continued Examination (RCE).

Claims 17-22 are pending in this application.

Claims 17-22 have been amended.

Claim Rejections – 35 U.S.C. § 103

Claims 17-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Johnson et al. (US 5,963,146) in view of Suzuki et al. (US 5,892,912). Applicants submit that important features of the amended claims are neither taught nor suggested by Johnson et al. or Suzuki et al., alone or in combination. Reconsideration of the Section 103 rejection is respectfully requested on that basis.

In response to the applicant's remarks in reply to the previous Office Action, "the examiner points out that said 'supporting' feature of the server, specifically 'grouping together a plurality of nodes' and 'grouping together a plurality of gateways' is not recited in the claim in such a way as to imply the embedded functionality of the server supporting said feature." The Office Action further asserts that while the claims recite a topology database, there is not "any indication of functionality for which said server has to be configured to implement the applicant's invention" and "there is no indication in the dependent claims that said server is configured to access said database, and , using the stored data, to implement the functionality the applicant is arguing about."

The applicant has amended claims 17-22 to more expressly recite the functionality performed by the server. In particular, independent claim 17 now expressly recites a server "wherein the server groups together a plurality of nodes to define groups of noninterfering nodes based at least in part on the node assignments and groups together a plurality of gateways to define sets of noninterfering gateways." The applicant submits that neither Johnson et al. nor Suzuki et al. teaches or suggests this claimed function of the server, whether alone or in combination.

As explained in the specification, an interference problem can arise in an automatic meter reading system if too many meters in the system were to transmit their meter data

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simultaneously. For example, "if all meters were to transmit simultaneously, the resultant traffic would be so great as to cause tremendous interference on the inbound path." Spec., p. 13, ll. 15-17. Consequently, one aspect of the claimed invention aims to "reduce this interference by controlling the number of meters that transmit at one time." Spec., p. 13, ll. 17-18. Specifically, in accordance with this aspect of the invention,

the nodes [of the system] may be grouped together to form groups of nodes and the gateways may be grouped together to form sets of gateways. By selecting one node from each group of nodes, the selected nodes can be formed into a group of noninterfering nodes as is explained in detail below. Similarly, by selecting one gateway from each set of gateways, the selected gateways can be formed into a set of noninterfering gateways as also explained in detail below. (Spec., p. 11, II. 15-21)

A "group of noninterfering nodes" is expressly defined as:

one in which: (a) no inbound transmission from any node in the group interferes with any inbound transmission from any other node in the group; and (b) no inbound transmission from any meter associated with any node in the group interferes with any inbound transmission from any meter associated with any other node in the group. (Spec., p. 11, ln. 31 – p. 12, ln. 3)

Similarly, a "group of noninterfering gateways" is expressly defined as:

one in which: (a) no inbound transmission from any node associated with any gateway in the group interferes with any inbound transmission from any node associated with any other gateway in the group; and (b) no inbound transmission from any meter associated with any node associated with any gateway in the group interferes with any transmission from any meter associated with any node associated with any other gateway in the group. (Spec. p. 12, ll. 18-23

Once groups of noninterfering nodes and groups of non-interfering gateways are identified in this manner, the server can send read commands sequentially to each group of non-interfering nodes or to each group of non-interfering gateways and receive meter data from a given group in a manner that ensures that transmissions from the nodes or gateways in that group will not interfere with each other. *See*, spec. at p. 11, II. 22-30.

The Office Action appears to assert that Johnson et al. discloses the claimed feature, but it is unclear what portion of Johnson et al. is cited in support of that assertion. Applicants have reviewed the portions of Johnson et al. cited in the Office Action and are unable to find any teaching or suggestion of grouping together of a plurality of nodes to define "groups of

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noninterfering nodes" and grouping together of a plurality of gateways to define "sets of noninterfering gateways," as recited in claim 17. Indeed, there does not appear to be any discussion at all in the Johnson et al. reference of defining "groups of noninterfering nodes" or "groups of noninterfering gateways," as those terms are expressly defined in the instant application. Nor does the Suzuki et al. reference teach or suggest such features.

The Suzuki et al. reference describes a method for managing virtual networks using a virtual network identifier. It has nothing to do with automated meter reading systems and certainly does not teach or suggest an automated meter reading system having a server that groups together a plurality of nodes to define groups of noninterfering nodes and that groups together a plurality of gateways to define sets of noninterfering gateways, as recited in claim 17.

For the foregoing reasons, Applicants respectfully submit that claim 17 patentably defines over Johnson et al. and Suzuki et al., alone or in combination. Inasmuch as the remaining claims depend either directly or indirectly from claim 17, Applicants submit that they too patentably define over the cited art or record. Reconsideration of the Section 103(a) rejection of claim 17-22 is respectfully requested.

CONCLUSION

For all the foregoing reasons, Applicants respectfully submit that the present application is in condition for allowance.

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